

CLAIMS

1. Switching device for irrigation line constituted by two flexible supply tubes (4a, 4b), each connecting a flask (2a, 2b) containing an irrigation liquid to a handpiece (16) by means of a peristaltic pump (12), characterized in that it
5 comprises at least one compression element (34a, 34b; 46a, 46b; 56, 56a, 56b) and control means (32, 40, 50, 50a, 50b) which can apply this compression element alternately on each of the flexible supply tubes (4a, 4b) in such a way as to squeeze and block it, the control means (32, 40, 50, 50a, 50b) being such that, when one of the tubes is being squeezed in order to block the passage of the
10 liquid in this flexible tube, the other tube is not being squeezed so as to allow the liquid to flow in this other flexible tube.
2. Device according to Claim 1, characterized in that it comprises two compression elements (34a, 34b; 56a, 56b) and the control means (32, 40, 50a, 50b) are adapted to apply each of these compression elements respectively on
15 each of the flexible supply tubes (4a, 4b) so as to squeeze it and ensure blocking thereof, the control means (32, 40, 50, 50a, 50b) being such that, when one of the compression elements is released, thus allowing the flow of the liquid in the corresponding tube, the other compression element is already squeezed so as to block the passage of the liquid in the other flexible tube.
- 20 3. Device according to one of Claims 1 or 2, characterized in that it is disposed on a dental handpiece.
4. Device according to one of Claims 2 or 3, characterized in that the control means are constituted by a sliding element (32) which the user can actuate and which comprises two stops (34a, 34b) arranged at its respective ends, each stop
25 being capable of occupying two positions, namely a position of blocking in which it compresses the flexible tube (4a, 4b) on a counter-stop (24a, 24b), so as

to squeeze it and block it, and a position of flow in which it does not apply the tube on the counter-stop and does not block it.

5 Device according to Claim 4, characterized in that the stops (34a, 34b) are disposed in such a manner on the sliding element (32) that, during the movement of displacement thereof, from one position to the other, one of these elements (34a, 34b) is located in position of blocking before the other element is in position of flow.

6. Device according to one of the preceding Claims, characterized in that the compression element is constituted by a roller (34a, 34b).

10 7. Device according to one of Claims 4 to 6, characterized in that the sliding element (32) is mounted mobile in rotation on a support pin (28) so as to be able to pivot thereabout and occupy two positions, namely a position of functioning in which at least one compression element (34a, 34b) ensures squeezing of a tube (4a, 4b), and a position of rest in which the compression elements (34a, 15 34b) are disengaged from the two tubes (4a, 4b).

8. Device according to Claim 2, characterized in that the control means are constituted by a rotating element (40) comprising two cam elements (46a, 46b) adapted, during rotation of the rotating element (40), to come into abutment on one of the flexible tubes (4a, 4b) in order to compress it and squeeze it so as to 20 ensure blocking thereof, each cam element (46a, 46b) being disposed so that, when one of the cam elements compresses a flexible tube to compress it, the other cam element is not in abutment on the other flexible tube so that the irrigation liquid can circulate therein.

9. Device according to Claim 1, characterized in that the control means are 25 constituted by at least one electromagnet (50, 50a, 50b) controlling the displacement of at least one compression element adapted to compress one of the flexible tubes while releasing the other.

10. Device for supplying a dental handpiece with two irrigation liquids employing a switching device according to one of Claims 1 to 9, and a peristaltic pump (12), characterized in that the latter is of the expansion type.

11. Device for supplying a dental handpiece employing a switching device
5 according to one of Claims 1 to 9, and a peristaltic pump (12) driven by a motor, characterized in that the motor is a stepping motor.